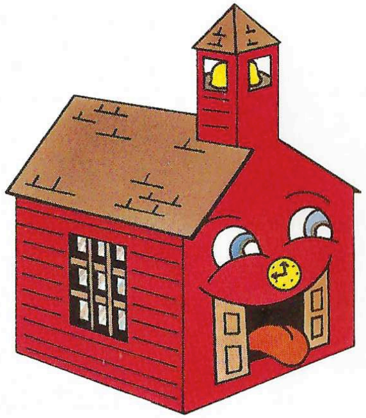

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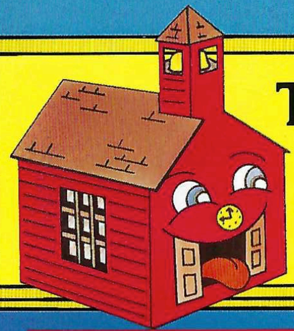
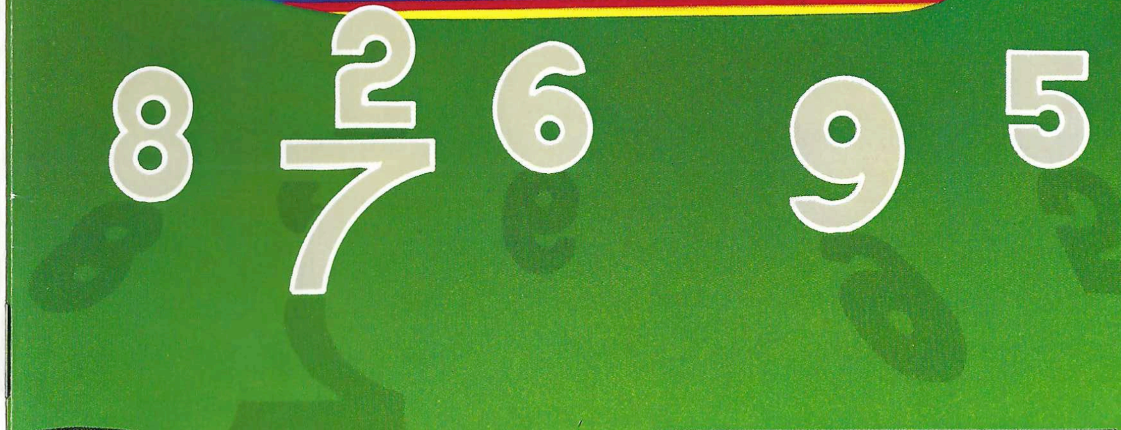


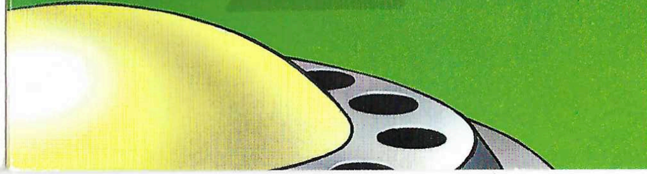
The TALKING SCHOOLHOUSE™ SERIES

Real Human Speech
That Teaches Basic Skills
Without Extra Hardware!

Apple® IIGS
3.5″ Disk

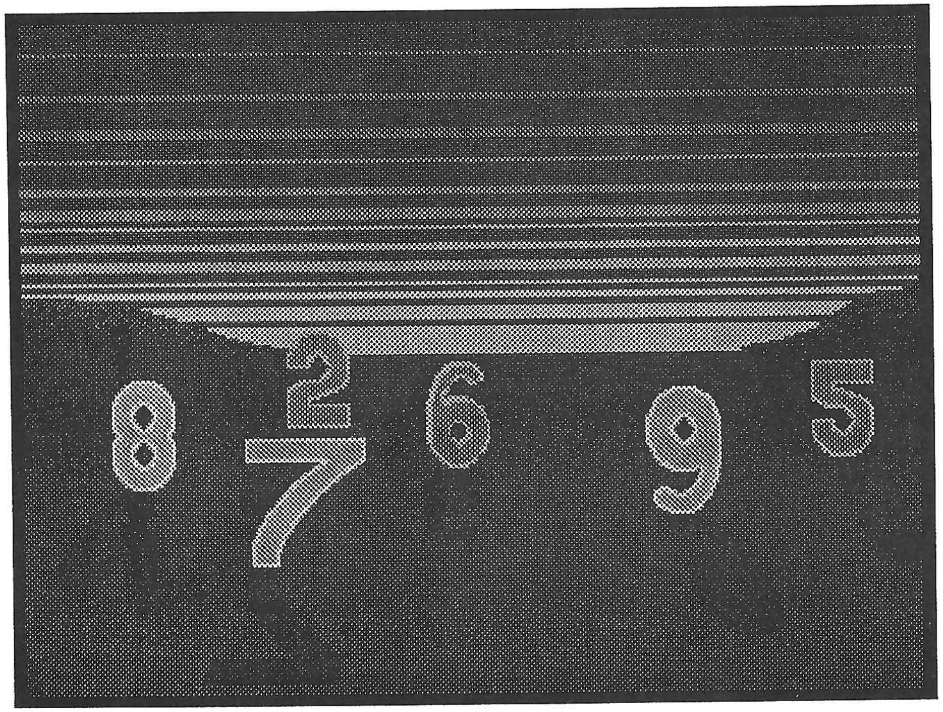
TALKING NUMBERS





3.5″ Disk 512K
Power of Human Speech +
Super HI-RES, 16-Color graphics
NO EXTRA HARDWARE REQUIRED!

TALKING NUMBERS



This series consists of four parts on one 3.5" disk:

Press a key, then see and hear a number
See and hear the computer count
Hear a number, count the objects, then press a key
Take the Talking Numbers quiz

The Talking Schoolhouse™ Series

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Quickstart

BOOTING THE PROGRAM

Talking Numbers is designed to run on the Apple IIGS (512K min. mem.)with a 3.5" disk drive. Insert the disk into the drive label side up, then turn on your computer and monitor. No additional speech board or hardware is required to play the human voice and sound within this program. The program will boot automatically. To reboot at any point, press the control/open apple/reset keys simultaneously, then release.

MAIN MENUS

When **Talking Numbers** has completed loading procedures, the Main Menu will appear on the screen, offering five options: *Press a Key, then see and hear a number; Hear a number, count the objects, then press a key ; See and hear the computer count; Take the Talking Numbers Quiz* ; *Leave Talking Numbers*. Students must use the computer mouse to click on the section they wish to work with. They may run the sections in any order they choose, but if they proceed sequentially in the order given, the material presented will increase in difficulty at an appropriate developmental level.

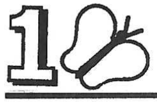
To adjust the volume in this particular program, the user must enter the *Control Panel*. Press the Control/Open Apple/Esc keys simultaneously, then release. A blue screen containing a menu of desk accessories will appear. Use the Up Arrow key to highlight the choice *Control Panel*, then press the Return key. On the next menu, choose *Sound*. Press the → key to raise the volume. Press the ← key to lower the volume. When the volume is set, press *Return*, then choose *Quit* and press *Return* one more time to return to the program.

Introduction

Talking Numbers is a four-part program on one 3.5-inch disk. It was developed for children ages 4-7 and provides an excellent introduction to computer learning. A warm human voice guides pre-readers through the program, so even very young children will readily adapt to the easy-to-use format. **Talking Numbers** is a valuable tool for teaching counting skills and the numerals one through nine. Young students also get a solid introduction to the use of the computer keyboard and mouse.

Talking Numbers offers an inventive, highly interactive method for teaching children their numbers and beginning counting skills. A clear woman's voice helps children identify the numbers and teaches them the concepts of numerical order, numerical values, and number words. Students are prompted to use the keyboard or mouse to select numbers, and the computer responds to the children's input instantly, aiding retention of the material presented. Children receive positive verbal and visual feedback for all of their input. Instruction screens in this program are necessarily directed toward the teacher or parent, as some children at this level are not yet able to read. Certain youngsters may require supervision when first getting started with each section of the program.

Talking Numbers displays the maximum capabilities of the Apple IIGS computer. High-resolution graphics, animation, and human voice will thrill young children, and no additional hardware is needed. Developers have recorded actual human voice and electronically digitized the sound into the computer program. The result is clear, natural-sounding speech -- not a confusing, synthesized computer voice.



Learning Objectives

Conceptual Objectives

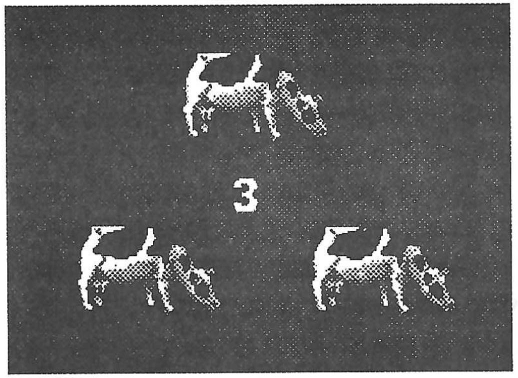
Through the use of this program, children should develop a basic understanding of the concepts of order and sequence as they relate to numbers. Students should also perceive the connection between the two concepts of number and numeral. The presentation of a group of objects with the numeral corresponding to the number of objects reinforces this relationship. Additionally, young students' conceptions of cause and effect will also be reinforced as they press the keys to see the colorfully animated illustrations.

Skill Objectives

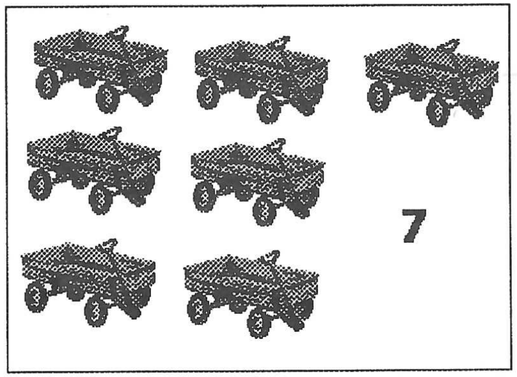
Children should become proficient at recognizing and reciting the numbers and numerals one through nine. They will learn to associate the sounds of the numbers with the appearance of the numerals on both the keyboard and the screen. Eye-hand coordination and motor skills will also be enhanced as they gain practice in locating and typing numbers on the keyboard and become accustomed to manipulating the computer mouse. They should gain the basic skills they need to approach counting on a more sophisticated level and begin learning math.

Affective Objectives

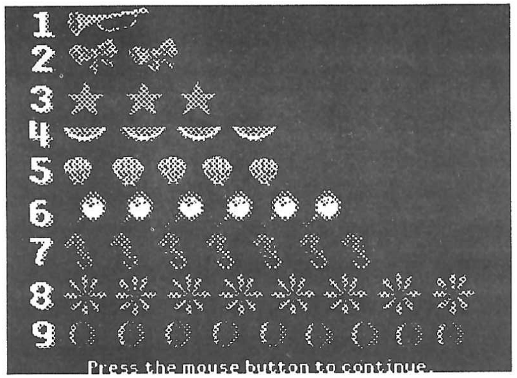
Immediate positive feedback in the form of human voice, colorful graphics, and animation will reinforce the child's feelings of confidence and accomplishment. Students quickly learn that they have control over the direction of the program, as they must interact with the computer, via the keyboard or mouse, for the program to advance. This process allows students to progress at their own pace, which is less intimidating for younger children or those having difficulty with the material presented.



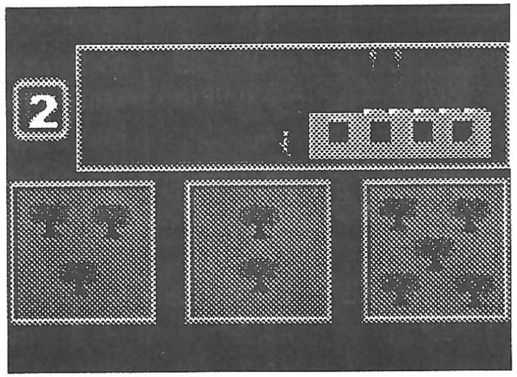
Press a key, then see and hear a number presents a simple beginning for young students. Children merely press any of the numeric keys along the top of their keyboard (except for zero). The program responds by presenting children with a graphic of the numeral chosen as well as a picture representing that number of objects. For example, when "3" is pressed, kids hear the word "three" spoken aloud and see a picture of three cows grazing. Numeric keys may be pressed in any order, and users must click the mouse in order to quit and return to the Main Menu.



In **Hear a number, count the objects, then press a key**, the student hears a number word spoken aloud and sees a collection of objects. The child must count the objects in the picture, then press the correct numeric key on the keyboard. In this example, children see seven red wagons and hear "seven" spoken aloud, but the written number "7" is missing. It will appear when the student presses "7" on the keyboard. The program will not advance to the number "8" until the child has pressed the correct key for the "7" screen. The user must click the mouse to exit.



The third part of the program, **See and hear the computer count**, may be used as a good review or teaching tool to help illustrate number words, numerical order, and number values. The section advances automatically, counting from one to nine. Students hear the number words spoken aloud and see a progression of numbers and objects fill the screen. The graphic to the left shows what the screen looks like after the last number and its corresponding objects are presented. Children should be asked to count the various rows of objects at this time.



In the **Talking Numbers Quiz**, students see screens in the same format as the one to the right. They hear numbers spoken aloud, and must use the mouse to click on one of the boxes of objects below. The boxes contain varying amounts of objects, and kids must match the number of items with the numeral given. If the child chooses correctly, the balloon man runs over and releases a balloon that rises up and remains. If the child is incorrect, the balloon bursts and falls, and the correct answer is highlighted. If all 5 are correct, a rocket lifts and flies off the screen.

☐ The use of a liquid crystal display with your overhead projector and Apple IIGS computer is highly recommended for group classroom activities centered around **Talking Numbers**.

☐ Discuss the concept of odd and even numbers. Do any of your students know what odd and even numbers are or what the concept means? Explain this to them, then give some examples. Have the children give additional examples. How do they know if a number is odd or even? Use pictures to illustrate the concept if neccessary.

☐ Discuss games that have numbers incorporated in them. Has anyone ever played dominoes? How high do the numbers go on dominoes? What numbers are represented on dice? Have they ever played a board game that has a numbered wheel? What numbers are represented on playing cards? What other games do they know of that use numbers?

☐ Discuss the difference between the terms "number" and "numeral." A number is a concept of quantity or amount; a numeral is a symbol representing a number. Tell them to look out for instances in which people say "number" and mean "numeral."

☐ Go around the classroom counting up to ten. Each student must say the next number. Have them go as high as they can. Assign each child a number and have them write the numeral on a piece of paper. Have them draw a group of objects corresponding with their numbers, then hang the procession of numerals on the wall. See if the students can put the drawings in numerical order by themselves.

☐ Have your students try to create stories about why numerals are shaped the way they are. The numeral "3" has three points to the left side. Encourage the children to be as creative as they can with their stories, assuring them that there is no "right" answer. Discuss the fact that the numeral "6" is an upside-down "9." Why do they think this is so? Which of the numerals do they think came first, and why?

☐ Discuss the evolution of counting and numbers. One humorous example you might share with the class is that of the society whose numbers consist of "one," "two," and "plenty." Why would people want to count this way? Do the students know of any other ways of counting? What is meant by "counting by *twos*"? Why would anyone want to count by twos?

☐ As a more advanced exercise, discuss "zero" and what it means. Why do we need a numeral to representing nothing? What does nothing mean? This may lead to a lesson in combining numerals to create larger values. What comes after ten? How high can students count? What is a countdown? can students count backwards from ten?

☐ Instruct the class to think about the concept of the number one. What does it mean when someone describes a person or object as being #1? Extend the discussion to cover expressions like "first-rate" or "first-string." Ask them what it would feel like to be "second-best" or a "second-class citizen."

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Teaching Strategies

☐ Bring a bag of marbles, jacks, acorns, polished stones, or dried beans into class. Have the students line up in a row by your desk. Have them come up one by one and whisper a number to them. Tell the students to pick that number of objects from the bag, then go to the blackboard and write their numerals. When everyone is finished, go over the numbers in order, saying them aloud along with the class.

☐ Teach the children the song "A Partridge in a Pear Tree." Use the song's verses to introduce students to the numbers ten, eleven, and twelve. Play a recording of the song to them, have them become familiar with the words, then sing along. Acquaint the children with "first," "second," "third," "fourth," "fifth," etc.

☐ Teach the students in your class the symbols for "greater than" and "less than" (> and <). Ask them which is *greater*, four or five? Explain that *greater* means *more*. Give the children numerous examples and explain how they can remember which symbol is which by the direction of the point, or the "big" side and the "little" side. Have them practice problems of "greater than" and "less than" until they fully understand the concept.

☐ Talk about superstitions centered around numbers. Explain how some people believe in "lucky" and "unlucky" numbers. Talk about the history behind the numbers three, seven, thirteen, etc. Explain how people once believed that numbers had mystical meaning or magical powers. Ask children whether or not they believe in such things, and if so, why.

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Teacher's Notes